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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/714,387	11/16/2000	Kennon R. Copeland	A33436(065855.0121)	9510

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EXAMINER


BOYCE, ANDRE D

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 07/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/714,387	Applicant(s) COPELAND, KENNON R. 	
	Examiner Andre Boyce	Art Unit 3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/19/01</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-19 have been examined.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitation "those sources". This terminology seems to imply that "sources" have previously been claimed. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and
- (2) whether the invention produces a useful, concrete, and tangible result.

For a claimed invention to be statutory, the claimed invention must be within the technological arts. Mere ideas in the abstract (i.e., abstract idea, law of nature, natural phenomena) that do not apply, involve, use, or advance the technological arts fail to promote the "progress of science and the useful arts" (i.e., the physical sciences as opposed to social sciences, for example) and therefore are found to be non-statutory subject matter.

For a process claim to pass muster, the recited process must somehow apply, involve, use, or advance the technological arts. In the present case the independent claims 1, 7, and 12 only recite abstract ideas. The recited steps of collecting data, estimating total sales volume, calculating a day of the week specific projection factor, sampling sales data, etc. does not involve, use, or advance the technological arts (i.e., computer, processor, electronically, etc.), since the steps could be performed using pencil and paper.

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. In the present case the claimed invention applies a projection factor to determine an estimate of total sales, thereby producing a useful, concrete, and tangible result, but not within the technological arts as explained above.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-4, 6-10, and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Ando (USPN 6,032,125).

As per claim 1, Ando discloses a method for estimating sales volume of an item (forecast model 6, figure 1) comprising: collecting sampled sales data for a reference period (13 month sales results, column 4, lines 34-36); estimating total sales volume for the reference period (monthly forecast file F5, column 4, lines 59-61); parsing the reference period into a plurality of sub-periods (forecast result file F2, forecasting value of each week, column 4, lines 39-42), collecting sampled sales data for a current sub-period of interest (i.e., current week), the current sub-period of interest being later in time than the reference period (final forecasting result based on data of the current week, column 5, lines 35-38); matching the current sub-period to a corresponding sub-period from said plurality of sub-periods (last 18 weeks); calculating a sub-period specific projection factor for the corresponding sub-period (pattern outputting the forecasting value S13, column 5, lines 45-47); and applying said projection factor to said sales data from the current sub-period of interest to determine an estimate of total sales for the current sub-period (closest pattern is extracted and used to obtain the final forecasting result, column 5, lines 39-47).

As per claim 2, Ando discloses the sub-periods are days of the week (frequency of forecasting may be daily, column 4, lines 26-29).

As per claim 3, Ando discloses the reference period is one-week (forecast result file F2).

As per claim 4, Ando discloses the current sub-period is a certain day of the week, the sub-periods of the reference period are days of the week and wherein the corresponding sub-period is the day of the week matching the certain day (daily forecasting result reflected in weekly forecasting, wherein the pattern from each day is compared to the same day of the previous week, as seen in Figure 2, which uses weeks instead of days, column 7, lines 41-45).

As per claim 6, Ando discloses the sample size for the reference period is larger than the sample size for the current sub-period of interest (sample size of the first 14 weeks versus the entire 18 week period, column 5, lines 56-59).

As per claim 7, Ando discloses a method of estimating daily sales volume (frequency of forecasting may be daily, column 4, lines 26-29) comprising:
calculating a day of the week specific projection factor based on reference sales history data (final forecasting result pattern S13, figure 3); sampling sales data for a current day of interest (i.e., current day, wherein final forecasting result based on data of the current day, column 5, lines 35-38); scaling at least a portion of the sampled sales data for the current day of interest by the day of the week specific projection factor to determine an estimate of daily sales volume for the current day of

interest (most frequently appeared pattern in the past 18 weeks/days is used for forecasting the future 18 weeks/days, column 5, lines 48-55).

As per claim 8, Ando discloses the reference sales history data includes sampled sales data for a reference week prior to the day of interest (daily forecasting would include data from last 18 weeks/day).

As per claim 9, Ando discloses the step of calculating the day of the week specific projection factor includes generating daily estimated sales volume for at least one day in the reference week (multiple patterns are calculated based upon the day of the week, see figures 2A-C as reference).

As per claim 10, Ando discloses the at least a portion of sampled sales data for the day of interest is the sampled data from those sources which have also provided data for the reference week (data from point-of-sales system at retail shop, column 4, lines 34-38).

Claim 17 is rejected based upon the rejections of claim 1, since it is the system claim corresponding to the method claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando (USPN 6,032,125), in view of Felthausen et al (USPN 5,420,786).

As per claim 5, Ando does not disclose the item being a pharmaceutical product. Felthausen et al discloses product sales at pharmacies estimated (column 5, lines 59-61). Both Ando and Felthausen are concerned with effective product sales estimation, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a pharmaceutical product in the Ando system, as seen in Felthausen, thus making the Ando system more flexible and robust.

As per claim 11, Ando does not disclose the sources are retail pharmacies. Felthausen et al discloses product sales at pharmacies estimated (column 5, lines 59-61). Both Ando and Felthausen are concerned with effective product sales estimation, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a pharmaceutical product in the Ando system, as seen in Felthausen, thus making the Ando system more flexible and robust.

10. Claims 12-14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando (USPN 6,032,125), in view of Takahashi (USPN 6,021,394).

As per claim 12, Ando discloses a method for estimating daily sales volume of an item (frequency of forecasting may be daily, column 4, lines 26-29) comprising: collecting sampled sales data from a first plurality of sources for a current day of

interest (product master F1, collecting results from a retail shop, column 4, lines 34-38); collecting sampled sales data for a reference week, said reference week being offset in time from said current day by a predetermined time period (reading forecast files F2 for the past 18 weeks sequentially, column 5, lines 41-43); estimating total sales volume for the reference week (demand forecasting for every week); parsing the sampled sales data and estimated total sales volume for the reference week by day of the week (daily forecasting result reflected in weekly forecasting, wherein the pattern from each day is compared to the same day of the previous week, as seen in Figure 2, which uses weeks instead of days, column 7, lines 41-45); selecting the parsed sales data and estimated total sales volume data for the day of the week in the reference week that matches the day of the week of the current day of interest (i.e., current day, wherein final forecasting result based on data of the current day, column 5, lines 35-38); calculating a day of the week specific projection factor for the current day of interest (most frequently appeared pattern in the past 18 weeks/days is used for forecasting the future 18 weeks/days, column 5, lines 48-55); and applying said projection factor to said sales data for the current day of interest to determine an estimate of total sales for the day of interest (closest pattern is extracted and used to obtain the final forecasting result, column 5, lines 39-47).

Ando does not disclose collecting sampled sales data for a reference week from a second plurality of sources. Takahashi discloses the center computer 11 estimating sales for a plurality of vending machines 1, wherein sales results from vending machines 1A and 1B, over various time periods, are used to determine

estimates sales for a particular product (column 5, lines 21-26). Both Ando and Takahashi are concerned with product forecasting, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include collecting sampled sales data for a reference week from a second plurality of sources in the Ando system, as seen in Takahashi, making the Ando system more robust, by collecting data from multiple retail shops that sell the same products.

As per claim 13, Ando discloses the quantity of sampled sales data for the current day of interest is smaller than the quantity of sampled sales data for the corresponding day of the week in the reference week (sample size of the first 14 weeks versus the entire 18 week period, column 5, lines 56-59).

As per claim 14, Ando does not disclose comparing said first plurality of sources to said second plurality of sources to determine the intersection of said sources and wherein the step of determining the day of the week specific projection factor applies sample data from said intersection of sources. Takahashi discloses comparing sales results of a plurality of vending machines in order to determine product sales estimates (column 5, lines 2-7). Both Ando and Takahashi are concerned with product forecasting, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to determine the intersection of said sources in the Ando system, as seen in Takahashi, making the Ando system more robust, by collecting and mining data from multiple retail shops that sell the same products, thereby determining more accurate forecasts.

Claim 18 is rejected based upon the rejection of claim 14, since it is the system claim corresponding to the method claim.

11. Claims 15, 16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando (USPN 6,032,125), in view of Takahashi (USPN 6,021,394), in further view of Felthausen et al (USPN 5,420,786).

As per claim 15, neither Ando nor Takahashi disclose the sources are retail pharmacies. Felthausen et al discloses product sales at pharmacies estimated (column 5, lines 59-61). Both Ando and Felthausen are concerned with effective product sales estimation, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a pharmaceutical product in the Ando system, as seen in Felthausen, thus making the Ando system more flexible and robust.

As per claim 16, neither Ando nor Takahashi disclose the item being a pharmaceutical product. Felthausen et al discloses product sales at pharmacies estimated (column 5, lines 59-61). Both Ando and Felthausen are concerned with effective product sales estimation, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a pharmaceutical product in the Ando system, as seen in Felthausen, thus making the Ando system more flexible and robust.

Claim 19 is rejected based upon the rejection of claims 15 and 16, since it is the system claim corresponding to the method claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Crockett (USPN 5325292) discloses planning, scheduling, and managing personnel.

-Lin et al (US 2001/0034637) discloses predicting visitor traffic to a web site.


-Landvater (USPN 6609101) discloses time-phased forecasting.


13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre Boyce whose telephone number is (703) 305-1867. The examiner can normally be reached on 9:30-6pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3623

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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